

GEOGRAPHIC

SCHOOL BULLETINS



THE NATIONAL GEOGRAPHIC SOCIETY, WASHINGTON 6, D.C.

VOL. XXXV, NO. 20, FEBRUARY 25, 1957 . . . To Know This World, Its Life



BERNARD G. SILBERSTEIN ©

Near Madrid, shepherds share a pasture with a windmill right out of Don Quixote

CONTENTS

- Spain, Land of Surprises
- Mountain Range in Mid-Atlantic
- Africa's Serengeti Spectacle
- Index: Vol. XXXV, Numbers 1-20
- Honolulu, 7th in City Series

*NEXT WEEK: On-the-spot
report of crisis in Haiti*

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paved roads, bridges, and aqueducts still standing attest the skill of Roman builders. Yet oft-conquered Spain remains sharply proud. Modern cities roar with life. But not far off, hunters vanish into desolate tracts with a good chance of bringing down a chamois, lynx, wolf, wild boar, deer, or even bear. Many streams flash with trout.

About twice the size of Oregon, Spain shares the Iberian Peninsula with little Portugal. Mountain chains ridge the land, giving it an average elevation of 2,000 feet above sea level. In Europe, only Switzerland and Austria are higher.



JUSTIN LOCKE

SUNNY FIELDS near Jaca, in the Pyrenees, spread beyond a bridge built by Romans

The almost encircling sea gives jobs to fishermen. They keep dinner tables supplied with various shellfish including oysters and three kinds of lobster. Tons of sea products arrive and disappear each morning at Madrid's fish market near the Toledo Gate. Mouths water over the turbot, a potbellied fish weighing as much as 40 pounds.

Most of Spain's nearly 29,000,000 inhabitants work small farms, hire out to large estates, tend fruit groves, or mind sheep and cattle. Olive culture takes up some 5,000,000 acres, providing the world with nearly half of its olive oil. While Portuguese neighbors search for uranium (see GSB January 28, 1957), Spaniards mine mercury, cobalt, manganese, copper, lead, zinc, and other minerals. Thriving cork oak forests, like Portugal's, provide millions of bottle stoppers.

At first glance, the centuries seem to have gone unheeded in Spanish villages like Ansó, in the Pyrenees. Men still wear black trousers, laced around white bloomers. They tie round hats to their heads and rope sandals to their feet. Some women dress like nuns in somber cowls.

But changes have come to Spain. Four centuries ago Spanish axes rang in the New World, clearing ground for forts. Now, American bulldozers rumble in Spanish provinces, grading soil for air strips.

Sixteenth century Spain spread colonies afar. Its explorers paved the way for priests and scholars, for gold and glory and bitter rivalry with Britain. Modern Spain keeps track of its



JUSTIN LOCKE

SPAIN

The Land Of Surprises

empire more easily. It counts a handful of quiet African lands—Spanish Sahara, Ifni, and Rio Muni. Spain's island possessions include Corisco, Elobey, Fernando Póo, and Annobón, all in the Gulf of Guinea, off Africa's west coast. The Canary and Balearic Islands are considered part of Spain proper.

Instead of sending conquistadores to the Americas, Spain welcomes American engineers. The new air bases, expected to be finished in 1958, assure protection for Spain. American airmen will funnel in dollars to bolster Spanish economy. In return, the airmen will get a valuable glimpse of history and breathe a mellow atmosphere of sunny meadows lined by poplar trees, of narrow-laned villages with age-old memories.

Spain has been called the "Land of the Unexpected." It combines rich orchards and vineyards with grim steppes and snow-crowned mountains. Crumbling castles, scowling from hilltops, recall 800 years of Moorish occupation. Stone-

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Drain the Atlantic
and this is what you would see
(C) HGS MAP

The Mountains You Dive To Climb

HUMAN eyes see only the topmost peaks of the world's greatest mountain range. Most of 10,000-mile-long Mid-Atlantic Ridge lies under hundreds of fathoms of salt water. Its tallest summit breaks surface to form the island of Pico in the Azores. Pico rises a modest 7,615 feet above sea level. But it's the crest of a subsurface monster looming 24,000 feet from the ocean floor.

A British vessel, *HMS Challenger*, discovered the Ridge in 1873. More recently, scientists have studied its contours. The National Geographic Magazines of September, 1948, and November, 1949, carried stories of two expeditions, jointly sponsored by The Society, Woods Hole (Massachusetts) Oceanographic Institution, and Columbia University, which traced the Ridge with dredges and sounding devices. Expedition leader Maurice Ewing told of deep gorges that seemed to flank the mountain chain.

Later investigation seems to show that these gorges form a continuous trench down the middle of the Ridge. In fact, the cleft is part of a 45,000-mile system of rift valleys (mostly underwater) that ring the earth like cracks in an old rubber ball. Africa's Great Rift Valley is one branch.—E.P.



NATIONAL GEOGRAPHIC PHOTOGRAPHER LUIS MARDEN

Residents of Madrid, the capital, must have wardrobes for burning summer heat, and biting winter cold. The more than 1,000-year-old city occupies a high level plateau equidistant between the Mediterranean, the Atlantic, and the Bay of Biscay. Inhabitants and visitors delight in its fountains, memorials, libraries, and museums. Traffic honks along the Gran Vía (Broadway), left, the main shopping boulevard. The Royal Armory contains fabulous collections of armor and weapons, nostalgic reminders of national glory no Spanish school child is allowed to forget.

Landlocked Madrid numbers more than a million people. Barcelona, almost as big, provides a gateway on the northeast coast for exports of cork, olives, wines, and fruits.

Whether city dwellers, mountain folk, fishermen, or farmers, Spaniards share a universal enthusiasm. They bellow their songs, flock to their bullfights, roar with laughter, dissolve in misery. Endlessly hard working, they manage to brighten the day by dancing to impromptu music. Their fandangos and boleros have traveled the world. The April, 1950, *National Geographic* article on Spain tells of Gypsy dances.

The bounding Basque at right, costumed for the goblet dance, is about to land on a glass of wine, then leap off it without spilling a drop. He is a mountaineer of the sheep country along the French border. He would hardly understand the problems and ambitions of a sailor from Cádiz, or an artist from Seville. But, being Spanish, they would cheer his dance. And he would join in theirs.—



JEAN VELEZ



Heads up, migrating zebras test the wind for the scent of lions.

under thousands of wild hoofs. A long line of zebras strings along the horizon. Saucy little Thomson gazelles, flicking their black tails, race for the joy of it, then pause to graze (right). A lone wildebeest (left), ungainly animal seemingly made of spare parts, separates from a herd of hundreds. As far as the eye can see, animals mass on the wide, grassy plains. Zebras, wildebeests and various gazelles are principals in the yearlong drama. Other animals and birds

watch the parade, prey on it, or flee from it. Giraffes browse among acacia branches. A rhino shuffles into a gorge. Hartebeest and topi take sudden flight from danger.



Families of ostriches file past like ballet dancers. Hyenas skulk through tall grass. A cheetah bounds off at 70 miles an hour. As herds move, life and death keep pace. The newborn wildebeest fights for a foothold. A startled herd threatens to trample it. Five old bulls shoulder in to form a protective wall. Minutes later the baby totters off behind its

mother. A lame gazelle drops behind. Buzzards circle patiently. When sunset has settled into cool, blue dusk a lioness stalks the cripple. Her two cubs watch the quick kill. Sounds continue, far into the African night—the cough of a leopard, the frantic “quag quag” of a zebra, hoofs pounding across the Serengeti Plain.—J.A.

PHOTOGRAPHS BY FRED A. WARDENBURG



Serengeti Spectacle



FRED A. WARDENBURG



© VERA MATKINS

THE tawny cats at left stretch lazily in the warmth of Africa's midday sun. Powerful paws curl with deceptive gentleness. Beyond, a yearly drama unfolds on the vast Serengeti Plain of Tanganyika—the world's greatest migration of animals. The lions will play their part.

The Serengeti Plain forms part of the highlands of Tanganyika Territory. Splendid and wild, it sprawls from a chain of volcanic mountains to the eastern shores of Lake Victoria. No paved roads cross here, no houses, telephone poles, or signboards intrude. Aside from wandering tribes of Masai (above), this seems exclusively a kingdom of animals.

Each year, usually starting in January, animals begin to drift through huge Serengeti National Park, where humans may still view the pageant and find it worth the hardships of getting there. The rains are still ahead. Animals seek water, fresh grazing. Grass, yellowed and dusty, flattens

- Islands** *See* Elephantine, Hawaiian, Hong Kong, Iceland, Ifalik, Ireland, Japan, Macau, Madeira, New Zealand, Samoa, Sicily, Tasmania, Virgin
- Italy** Pisa 30-31 *See also* Sicily
- Japan** 109-112
- Kashmir** 217-220
- Kitimat**, Canada 118-120
- Kuwait** 56-58
- Lahore**, Pakistan 152-153
- Latin America** *See* Brazil, Colombia, Costa Rica, Ecuador, Guatemala, Honduras, Nicaragua, Uruguay, Venezuela
- Liberia** 98-100
- Libya** camels 39
- Lincoln**, Abraham 148, 216
- Macau** 157, 162-163
- Machinery** conveyor belts 190; derrick 151; steam shovel 164
- Madeira** 202-204
- Maple syrup** 21, 22
- Maps** artificial satellite orbit 42; Bombay-London shipping routes 3; Central Europe 96; curlew's migration route 45; Hong Kong Island 135; Iceland 156; Kitimat 120; Kuwait 57; Macau and Hong Kong 163; Melbourne 84; Mid-Atlantic Ridge 233; Suez Canal 3; Yukon 191
- Marseille**, France 208-209
- Melbourne**, Australia 82-84
- Memorials** *See* Washington, D. C.
- Mexico** chicle 91
- Mid-Atlantic Ridge** 233
- Mines and minerals** aluminum 118-120; borax 132; copper 196; Death Valley 132; gold 190-192; iron ore 52; rock salt 153; salt 183; sulphur 164-165; tungsten 34-36; uranium 182, 194; zinc 151
- Mississippi** *See* Natchez Trace
- Missouri** Hannibal 54-55
- Mohawk Valley**, N. Y. 68-70
- Mountains** Alps 73, 74, 75; Apennine 227; Death Valley 130, 131; Green 20; Himalayas 218, 220; Mid-Atlantic Ridge 233; Pindus 107; Pyrenees 231; Sinai, Mount 87; Titano, Mount 227; Transylvanian Alps 95
- Museums** Bell 23-24; Scotty's Castle 131, 132
- Musical instruments** flute, Kashmir 219; stringed, Madeira 204
- Natchez Trace**, Miss.-Ala.-Tenn. 166-168
- National Geographic Society** 5, 32-33, 173, 186, 211, 226, 233
- National Monuments** U. S.: Chaco Canyon 186-187; Death Valley 121, 130-132; Devils Tower 78-79
- National Parks** U. S.: Shenandoah 226; Virgin Islands 102-103
- Netherlands** 178-180
- Nevada** Death Valley 121, 130-132; Hoover Dam 221
- New Mexico** Pueblo Bonito 186-187
- New York** Liberty Island 6-7; Mohawk Valley 68-70; New York City 133, 138-139
- New Zealand** 205-207 *See also* Samoa
- Nicaragua** Managua 212
- North Carolina** tungsten 34-36
- Oil** Aden 29; Arabia 40; Colombia 9; Iraq 122, 123; Kuwait 56; Venezuela 50, 51
- Olympic Games** 104-105
- Pakistan** Lahore 152-153 *See also* Kashmir
- Pennsylvania** *See* Gettysburg
- Plants** azaleas 168; banana 198-199; smilax 140, 141
- Poland** 93, 95, 96
- Polder** (reclaimed land) Netherlands 179
- Political campaigns**, U. S. 64-65
- Portugal** 181-184; Douro Valley 182, 184; Lisbon 184 *See also* Macau; Madeira
- Power** Canada 118-120; hydraulic turbine 76
- Prayer wall**, Buddhist 220
- Presidents**, U. S. 27, 64-65; Inauguration 170; Lincoln 216
- Rivers** Danube 93; Derwent 150; Iraq 122-123; Neckar 142, 143; Nile 185; Potomac 171, 172; Thames 15; Yarra 82 *See also* Dams
- Romania** 94-95
- Rubber** Liberia 99-100
- Samoa** 176-177
- San Marino** 227-228
- Satellite artificial** 41-43
- Scotland** sheep 16
- Shenandoah Valley**, Va. 224-226
- Sicily** sulphur 165
- Sinai Peninsula** 86-87
- Singapore** 11-12
- Siple, Dr. Paul A.** 80-81
- Spain** 229-232
- Sports** football 77; hockey 105; ice skating 180; mountain climbing 73; surf-riding 239 *See also* Olympic Games
- Statues** Kemal Atatürk 117; Simón Bolívar 51; Gen. Hancock 215; Sea Gull 195; Statue of Liberty 6, 7; wooden idol 205 *See also* Washington, D. C.
- Suez Canal** 2-4
- Switzerland** 73-76
- Syria** 193, 200-201; Damascus 200-201
- Tanganyika** 234-235
- Tapa** (tree bark) Samoa 177
- Tasmania**, Australia 150-151
- Tennessee** *See* Natchez Trace
- Texas** cattle 161
- Trade** Great Britain 14-16
- Trails**, Pioneer *See* Natchez Trace
- Transportation** bicycles 76, 163; bullock carts 71; cable car 72; trucks 132; dog sleds 192; horse carriages 201; tractors 81, 98, 145; trains 95, 198; tram 206
- Trees** Christmas 133, 139; coffee 124; maple 22; sapodilla 89, 90 *See also* Tapa
- Turkey** Ankara 116-117
- Twain, Mark** (Samuel Clemens) 54-55
- United States** Civil War 214-216; coffee drinking 124-125; deserts 38, 40; early cave man 32-33; Natchez Trace 166-168; political campaigns 64-65; Revolution 25-27, 76; sulphur 164 *See also* Alabama; Arizona; California; Hawaiian Islands; Illinois; Missouri; Nevada; New Mexico; New York; North Carolina; Samoa; Texas; Utah; Vermont; Virgin Islands; Virginia; Washington, D. C.; Wyoming
- U. S. Coast and Geodetic Survey** 210-212
- Uruguay** 136-137
- Utah** 194-196
- Venezuela** 49-53
- Vermont** 20-22
- Virgin Islands** 102-103
- Virginia** Shenandoah Valley 224-226; Staunton 226; Virginia Military Institute 225-226 *See also* Yorktown
- Wales** 16
- Washington, D. C.** 169-175
- Wool** Tasmania 151
- Wyoming** Devils Tower 78-79
- Yorktown**, Va. 25-27
- Yugoslavia** 94, 95, 96

- Aden** 28-29
Africa animals 234, 235; Sahara 37-39 *See also* Algeria; Egypt; Liberia; Libya
Agriculture Belgium 63; Great Britain 15; Illinois 145; Japan 110, 111; Madeira 202; New Zealand 207; Portugal 182, 184; Switzerland 73; Tasmania 150, 151
Alabama Evergreen 140, 141; Russell Cave 32-33 *See also* Natchez Trace
Albania 94, 95-96
Algeria 158-160; Algiers 159, 160
Animals aardvark 66-67; bighorn sheep 213; camels 37, 39, 200; camouflage 126-127; cattle 161, 228; dog teams 190, 192; donkeys 94, 95, 107, 136, 158; hibernation 197; horses 63, 101; longhorns 161; African migration 234, 235; moose 59-60; mule 141; prairie dogs 79; sheep 16, 207, 213
Ankara, Turkey 116-117
Antarctica 80-81
Anthropology cave man 32-33; Indians 186-187
Apples Shenandoah Valley, Va. 225, 226
Arabian Peninsula desert 39, 40 *See also* Aden; Iraq; Kuwait
Archeology Pueblo Bonito, N. Mex. 186-187; Russell Cave, Ala. 32-33
Arizona Hoover Dam 221
Asia deserts 39-40 *See also* Aden; Hong Kong; Iraq; Japan; Kashmir; Kuwait; Macau; Pakistan; Singapore; Syria; Turkey
Astronomy Geographos 149; Mars 5
Australia kookaburra 188-189; Melbourne 82-84; Olympic Games 104-105; Tasmania 150-151
Bananas 198-199
Belgium 61-63
Bell, Alexander Graham 23-24
Birds bobwhite 126; California condor 114-115; kookaburra 188-189; migration 44-45; ptarmigan 127; turkey 92
Boats and ships beams 123; excursion 150; fishing 108, 180, 183, 185, 209; freighters 2, 4, 10, 14, 151, 208; *HD-4* 23; liners 208; *Mayflower II* 88; refrigerated 199; schooners 103; Survey ship 210
Boy Scouts 80-81
Brazil 222-223; coffee 124
British Commonwealth *See* Aden, Australia, Canada, England, Hong Kong, New Zealand, Pakistan, Singapore
Bulgaria 94, 95
California 211; Death Valley 121, 130-132; desert 38, 40
Canada Kitimat 118-120; Yukon Territory 190-192 *See also* Museums
Canals 2-4
Caves Alabama 32-33
Chicle (chewing gum base) 89-91
Christmas 140-141; New York 133, 138-139
Churches and mosques Brazil 222; Colombia 9; Finland 48; France 208; Iraq 123; New Zealand 206; Pakistan 152; Salt Lake City 195; Sinai Peninsula 87; Syria 193; Washington, D. C. 172
Coffee 124-125
Colombia 8-10
Columbus, Christopher 17
Costa Rica bananas 198
Crafts bricklaying 123; embroidery 204; lacemaking 61; pottery 219; textiles 217
Czechoslovakia 85, 94, 96
Dams Hoover, Ariz.-Nev. 221
Death Valley, Calif.-Nev. 121, 130-132
Deserts 37-40 *See also* Death Valley; Sinai Peninsula
Dikes Netherlands 178, 179, 180
Dwellings Canada 119; Greece 107; plantation, Honduras 199; thatched, Ifalik 19; log cabin, Illinois 148; Ireland 128; Japan 111, 112; Kashmir 218, 220; thatched, Liberia 99; Madeira 202, 204; mansion, Mississippi 168; Netherlands 178, 180; pueblo, New Mexico 186, 187; Portugal 184; San Marino 228; Uruguay 136; grass, Venezuela 53; Wales 16; White House 171; miners', Yukon 192
Ecuador bananas 198, 199
Education Heidelberg University 142-144; Kuwait 57; school transportation 71-72; Switzerland 74
Egypt Aswan 185; Suez 1-4 *See also* Sinai Peninsula
Elephantine Island, Egypt 185
England Brixham (*Mayflower II* launching) 88; London 14, 15; Shaftesbury 13
Europe *See* Albania, Belgium, Bulgaria, Czechoslovakia, England, Finland, France, Germany, Greece, Hungary, Ireland, Italy, Netherlands, Poland, Portugal, Romania, San Marino, Scotland, Spain, Switzerland, Wales, Yugoslavia
Expeditions Antarctica 80-81 *See also* Alabama; New Mexico
Factories and mills Christmas greenery 140, 141; hearing aids 148; shoe 94
Finland Helsinki 46-48
Firecrackers Macau 157
Fortress Virgin Islands 102
France Marseille 208-209 *See also* Algeria
Gardens Shalimar 153
Germany Heidelberg 142-144
Gettysburg, Pa. 214-216
Geysers Iceland 154
Gold rush, Klondike 190-192
Greece 97, 106-108
Guatemala bananas 199
Harbors and ports Aden 28-29; Algiers 159, 160; Basra 122, 123; Dublin 129; Helsinki 46-48; Hong Kong 134; Honolulu 238-240; London 14, 15; Macau 162, 163; Marseille 208, 209; New York 7; Ragusa 95; Singapore 11-12; Venezuela 52
Hawaiian Islands Honolulu 238-240
Helsinki, Finland 46-48
Honduras bananas 199
Hong Kong 134-135
Honolulu, Hawaiian Islands 238-240
Hothouses Iceland 155
Hungary 93
Hurricanes 17
Iceland 154-156
Ifalik 18-19
Illinois 145-148; Chicago 146-147
India *See* Kashmir
Industries automobile 84; diamond cutting 63; Great Britain 14-16 *See also* Agriculture; Factories and mills; Mines and minerals
International Geophysical Year Antarctica 80-81 *See also* Satellite
Iraq 122-123
Ireland 128-129



NATIONAL GEOGRAPHIC PHOTOGRAPHER B. ANTHONY STEWART

Even pure Hawaiians were immigrants—Polynesians who sailed here in star-guided canoes, perhaps 1,000 years before Columbus found America. Their greetings to white strangers were not always as warm as they are today. Natives killed Capt. James Cook, English discoverer of the Islands.

Residents often live in hillside suburbs where they kick off shoes indoors. To them, Honolulu means office, church, school. When time permits, they take a dip at Waikiki, or one of the better surfing beaches on Oahu's western shore. For tourists, the city means flowers, weather, music. And Waikiki—positively. Offshore, lithe Hawaiians performing for fun ride outriggers like broncos down steep breakers. Surfboarders hurtle past, streaming wakes of pluming water. From somewhere down the beach stringed instruments strike plaintive tunes.

239

UNITED AIR LINES



Sheltering Waikiki Beach, Diamond Head looks down on surf-riding outrigger canoes



CASTLE AND COOK, PHOTO HAWAII

Honolulu Aloha

Seventh in Cities of the World Series

TO anyone claiming it isn't a sight (see above) say "hoomalimali." That's Hawaiian for "tell it to the Marines."

Your ship has crossed 2,400 miles of sea southwesterly from California to Honolulu. It's a bet you smell flowers before you see land, or tingle to the musical *aloha*, which says "hello" as well as "goodbye." Island ginger flowers, hibiscus, anthurium, many others, caress the air like gardenias at a junior prom.

The next wonder is Hawaiian weather. Daily temperatures average 75 degrees. Season slips into season unidentified except on calendars. Tropical rains dampen fun? No one minds. They're called "liquid sunshine" and are needed for sugar cane and pineapple crops that sweeten the island's economy.

But already another marvel unfolds—Honolulu itself, capital of the Territory of Hawaii, seaport city on the island of Oahu. Its front door is the sea. Mountains fill its back yard. Millions of dollars reaped from pineapple, sugar, and tourists fill vaults in Merchant Street (below) Honolulu's Wall Street. Along other business thoroughfares roars rush-hour traffic. Surging crowds recall New York. But most faces are oriental. Japanese, Chinese, Filipino ancestry has blended with English and American in this Pacific melting pot.



NATIONAL GEOGRAPHIC PHOTOGRAPHER B. ANTHONY STEWART

CHINESE CHRISTIANS worship in this pagodalike church on Honolulu's King Street. Missionaries helped settle the city. The National Geographic of May, 1954, describes it



HAWAIIAN TUNA PACKERS, LTD.

Sun shadows slant on massive Diamond Head and sharpen white sails of an idling canoe.

Surrounded by scenic richness, Honolulu's water front still finds time for daily labors. Burly dockers unload ships beneath the Aloha Tower. Japanese fishermen heave fresh tuna from the holds of their vessels, left. Trucks roll to the docks with cans of pineapple.

But many festival days offer an excuse for swimming and sun-bathing. Sometimes, 25,000 fans watch high school football battled in tropical temperature. Many a back punts barefoot.

Few modern hulas are authentic dances. Grass skirts are made in New Jersey. Ukuleles come from Pennsylvania. Anyhow, the dancing is *maikai*. The word means "good."—S.H.

